

HP Network Node Manager iSPI for IP Multicast

For the Linux operating systems

Software Version: 10.00

Upgrade Reference

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Chapter 1: About this Guide

This guide contains information for upgrading from the following NNM iSPI for IP Multicast versions to the NNM iSPI for IP Multicast 10.00:

- NNM iSPI for IP Multicast version 9.10
- NNM iSPI for IP Multicast version 9.20
- NNM iSPI for IP Multicast version 9.21

Environment Variables Used in the NNM iSPI for IP Multicast Documents

The NNM iSPI for IP Multicast documents use the following NNMi environment variables to refer to file and directory locations. The default values are listed here. Actual values depend upon the selections made during NNMi installation.

The NNMi installation process creates the following system environment variables:

- *\$NnmInstallDir*: /opt/OV
- *\$NnmDataDir*: /var/opt/OV

Chapter 2: Before you Upgrade

This chapter provides the steps to be followed before upgrading the NNM iSPI for IP Multicast from version 9.10 or 9.20 (with the patch 1) to 10.00.

Before Upgrading from NNM iSPI for IP Multicast 9.10 or 9.20 (with latest patch) to NNM iSPI for IP Multicast 10.00

Before you upgrade the NNM iSPI for IP Multicast 9.10 or 9.20 (with latest patch) to the NNM iSPI for IP Multicast 10.00, perform the following tasks:

Task 1: Move the NNMi and the NNM iSPI for IP Multicast from Red Hat Enterprise Linux version earlier than 6.4 to version 6.4.

For more information about moving to the Red Hat Enterprise Linux version 6.4, see the *Moving NNMi from a RHEL Version Earlier than 6.4 to RHEL 6.4 or Later* section of the *HP Network Node Manager i Software Upgrade Reference 10.00*.

Task 2: Change the operating system from HP-UX or Solaris to Linux

If you have the NNM iSPI for IP Multicast 9.10 or 9.20 (with the latest patch) on the HP-UX or Solaris operating system, you must change the operating system to a supported Linux operating system (such as Red Hat Enterprise Linux 6.4 or SUSE Linux 11 SP3) before migrating to NNM iSPI for IP Multicast 10.00. For more information about moving from HP-UX or Solaris operating system to Linux, see the *Moving NNMi from the HP-UX or Solaris Operating System* section of the *HP Network Node Manager i Software Upgrade Reference 10.00*.

Chapter 3: Upgrading to the NNM iSPI for IP Multicast Version 10.00

Before you start upgrading the NNM iSPI for IP Multicast from 9.1x to newer version, make sure that you upgrade NNMi 9.1x or 9.2x series to 10.00. For upgrading NNMi from earlier versions, see the *NNMi Deployment Reference*.

License for Upgrading from the Earlier Versions

If you are upgrading from the earlier versions of the NNM iSPI for IP Multicast, then you can obtain the NNM iSPI for IP Multicast, 10.00 upgrade licenses. You can contact HP sales to know about your upgrade license entitlement based on your order number for the earlier versions of the NNM iSPI for IP Multicast.

License for Upgrading from the Version 9.10 or 9.20 to Version 10.00

To upgrade to the NNM iSPI for IP Multicast, 10.00 from versions 9.10 or 9.20 the Contract Migration is *not* required as all these versions use the same LTU's SKU. You need the media product number only. The NNM iSPI for IP Multicast, 10.00 is password protected product, so you have to acquire your technical password migration. You can obtain your password from the following URL http://support.openview.hp.com/software_updates.jsp.

Upgrading from Version 9.10 to Version 10.00

Note: When you upgrade to Version 10.00, the migration of software and configuration take place. The data migration does not take place. You have to re-discover your multicast devices.

You must import the HP public key into the Linux RPM database before upgrading to version 10.00. To do this, point your browser to the following location and follow the instructions:

<https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPLinuxCodeSigning>

To upgrade the NNM iSPI for IP Multicast from version 9.10 to version 10.00, follow these steps:

1. Log on to the management server with `root` privileges.
2. Upgrade NNMi from version 9.10 to version 10.00.
3. Stop the Multicast process by running the following command:

```
ovstop -c mcastjboss
```

4. *Oracle database only.* Drop the following Oracle tables manually:

- mcast_mcflowmon_status_history
- mcast_mcnode_status_history
- multicast_group_ipmr
- multicast_ipm_entry_count
- multicast_mcast_octets
- multicast_mcbaseline_tree
- multicast_mcflow
- multicast_mcflow_attrs
- multicast_flowspecific_monconf
- multicast_mcflowmon_attr
- multicast_mcflowmon_concl
- multicast_mcflowmon_status
- multicast_mcgroup
- multicast_mcif_concl
- multicast_mcif_mon
- multicast_mcif_status
- multicast_mcif_status_history
- multicast_mcinterface
- multicast_mcneighbor
- multicast_mcnode
- multicast_mcnode_concl
- multicast_mcnode_mon
- multicast_mcnode_status

- multicast_mcsample_tree
 - timers
 - jbm_counter
 - jbm_dual
 - jbm_id_cache
 - jbm_msg
 - jbm_msg_ref
 - jbm_postoffice
 - jbm_role
 - jbm_tx
 - jbm_tx_ex
 - jbm_user
5. Insert the NNM iSPI for IP Multicast installation media into the CD-ROM drive. The CD-ROM starts automatically. If the installation does not start, double-click the setup.bin file. The installation wizard opens.
- If the Application requirement check warnings dialog box opens, review each warning, and take appropriate actions.
6. In the **Introduction (Upgrade)** screen, check the NNM iSPI for IP Multicast information, and then click **Next**.
7. On the **License Agreement** page, check the NNM iSPI for IP Multicast license terms. If you agree with the terms of the license agreement, click **I accept...**; and then click **Next**. On the **Select the Installation Type** screen, select **Typical**, and then click **Next**.
8. In the **Install Checks** screen, click **Next**.
9. Click **Upgrade** to start the upgrade process.
10. When the upgrade process is complete, click **Done**.
11. Start Mcast jboss by running the command: `ovstart -c mcastjboss`.

Upgrading from Version 9.20 to Version 10.00

Note: When you upgrade to Version 10.00, the migration of software and configuration take

place. The data migration does not take place. You have to re-discover your multicast devices.

You must import the HP public key into the Linux RPM database before upgrading to version 10.00. To do this, point your browser to the following location and follow the instructions:

<https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPLinuxCodeSigning>

To upgrade the NNM iSPI for IP Multicast from version 9.20 to version 10.00, follow these steps:

1. Log on to the management server with `root` privileges.
2. Upgrade NNMi from version 9.20 to version 10.00.
3. Stop the Multicast process by running the following command:

```
ovstop -c mcastjboss
```

4. *Oracle database only.* Drop the following Oracle tables manually:

- `mcast_mcflowmon_status_history`
- `mcast_mcnode_status_history`
- `multicast_group_ipmr`
- `multicast_ipm_entry_count`
- `multicast_mcast_octets`
- `multicast_mcbaseline_tree`
- `multicast_mcflow`
- `multicast_mcflow_attrs`
- `multicast_flowspecific_monconf`
- `multicast_mcflowmon_attr`
- `multicast_mcflowmon_concl`
- `multicast_mcflowmon_status`
- `multicast_mcggroup`
- `multicast_mcif_concl`
- `multicast_mcif_mon`
- `multicast_mcif_status`

- multicast_mcif_status_history
 - multicast_mcinterface
 - multicast_mcneighbor
 - multicast_mcnode
 - multicast_mcnode_concl
 - multicast_mcnode_mon
 - multicast_mcnode_status
 - multicast_mcsample_tree
 - timers
 - jbm_counter
 - jbm_dual
 - jbm_id_cache
 - jbm_msg
 - jbm_msg_ref
 - jbm_postoffice
 - jbm_role
 - jbm_tx
 - jbm_tx_ex
 - jbm_user
5. Insert the NNM iSPI for IP Multicast installation media into the CD-ROM drive. The CD-ROM starts automatically. If the installation does not start, double-click the setup.bin file. The installation wizard opens.
- If the Application requirement check warnings dialog box opens, review each warning, and take appropriate actions.
6. In the **Introduction (Upgrade)** screen, check the NNM iSPI for IP Multicast information, and then click **Next**.

7. On the **License Agreement** page, check the NNM iSPI for IP Multicast license terms. If you agree with the terms of the license agreement, click **I accept...**; and then click **Next**. On the **Select the Installation Type** screen, select **Typical**, and then click **Next**.
8. In the **Install Checks** screen, click **Next**.
9. Click **Upgrade** to start the upgrade process.
10. When the upgrade process is complete, click **Done**.
11. Start Mcast jboss by running the command: `ovstart -c mcastjboss`.

Upgrading from Version 9.21 to Version 10.00

Note: When you upgrade to Version 10.00, the migration of software and configuration take place. The data migration does not take place. You have to re-discover your multicast devices.

You must import the HP public key into the Linux RPM database before upgrading to version 10.00. To do this, point your browser to the following location and follow the instructions:

<https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPLinuxCodeSigning>

To upgrade the NNM iSPI for IP Multicast from version 9.21 to version 10.00, follow these steps:

1. Log on to the management server with `root` privileges.
2. Upgrade NNMi from version 9.21 to version 10.00.
3. Stop the Multicast process by running the following command:

```
ovstop -c mcastjboss
```
4. *Oracle database only.* Drop the following Oracle tables manually:
 - `mcast_mcfowmon_status_history`
 - `mcast_mcnode_status_history`
 - `multicast_group_ipmr`
 - `multicast_ipm_entry_count`
 - `multicast_mcast_octets`
 - `multicast_mcbaseline_tree`
 - `multicast_mcfow`

- multicast_mcflow_attrs
- multicast_flowspecific_monconf
- multicast_mcflowmon_attr
- multicast_mcflowmon_concl
- multicast_mcflowmon_status
- multicast_mcgroup
- multicast_mcif_concl
- multicast_mcif_mon
- multicast_mcif_status
- multicast_mcif_status_history
- multicast_mcinterface
- multicast_mcneighbor
- multicast_mcnode
- multicast_mcnode_concl
- multicast_mcnode_mon
- multicast_mcnode_status
- multicast_mcsample_tree
- timers
- jbm_counter
- jbm_dual
- jbm_id_cache
- jbm_msg
- jbm_msg_ref
- jbm_postoffice
- jbm_role

- jbm_tx
 - jbm_tx_ex
 - jbm_user
5. Insert the NNM iSPI for IP Multicast installation media into the CD-ROM drive. The CD-ROM starts automatically. If the installation does not start, double-click the `setup.bin` file. The installation wizard opens.

If the Application requirement check warnings dialog box opens, review each warning, and take appropriate actions.
 6. In the **Introduction (Upgrade)** screen, check the NNM iSPI for IP Multicast information, and then click **Next**.
 7. On the **License Agreement** page, check the NNM iSPI for IP Multicast license terms. If you agree with the terms of the license agreement, click **I accept...**; and then click **Next**. On the **Select the Installation Type** screen, select **Typical**, and then click **Next**.
 8. In the **Install Checks** screen, click **Next**.
 9. Click **Upgrade** to start the upgrade process.
 10. When the upgrade process is complete, click **Done**.
 11. Start Mcast jboss by running the command: `ovstart -c mcastjboss`.

Upgrading to NNM iSPI for IP Multicast 10.00 with Oracle

This section provides the steps to be followed for upgrading the NNM iSPI for IP Multicast from version 9.10 or 9.20 (latest patch) to 10.00 with Oracle.

Upgrading from Version 9.10 to Version 10.00

To complete an offline upgrade for NNM iSPI for IP Multicast 9.10 to NNM iSPI for IP Multicast 10.00 with Oracle database, follow these steps:

1. Identify two servers:

Server A is the current NNMi management server running RHEL (version 5.4)

Server B running RHEL (version 6.4)
2. On Server A, run `opt/OV/bin/nnmbackup.ovpl -type online -scope all -target temporary_location` command to complete full NNMi and NNM iSPI for IP Multicast backup

3. Stop the NNMi process by using `ovstop -c`
4. On Server B, install NNMi 9.10 (with latest patch) as secondary server by selecting the same Oracle server and instance configured on Server A
5. Copy `nnm.keystore` and `nnm.trusstore` from server A and merge the certificates on server B using `nnmcertmerge.ovpl`. For more information, see *NNMi 10.00 Deployment Reference*

Note: Make sure that NNMi is not running during this process.

6. Start the NNMi process using `ovstart -c`
7. Install NNM iSPI for IP Multicast 9.10 with Oracle database as primary server

Note: Make sure you provide the Web Service Client user credentials as mentioned during the NNM iSPI for IP Multicast 9.10 installation on Server A.

8. On Server B, run `nnmrestore.ovpl -source temporary_location` command to complete a full NNMi restore of the backup you completed in [step 2](#) on Server A
9. Start the NNM iSPI for IP Multicast process using `ovstart -c mcastjboss`
10. Upgrade to NNMi 10.00
11. Upgrade to NNM iSPI for IP Multicast 10.00
12. Wait for the next discovery cycle to complete

Upgrading from Version 9.20 (latest patch) to Version 10.00

To complete an offline upgrade for NNM iSPI for IP Multicast 9.20 (latest patch) to NNM iSPI for IP Multicast 10.00 with Oracle database, follow these steps:

1. Identify two servers:
 - Server A is the current NNMi management server running RHEL (version 5.4)
 - Server B running RHEL (version 6.4)
2. On Server A, run `opt/OV/bin/nnmbackup.ovpl -type online -scope all -target temporary_location` command to complete full NNMi and NNM iSPI for IP Multicast backup
3. Stop the NNMi process by using `ovstop -c`
4. On Server B, install NNM 9.20 (latest patch) as secondary server by selecting the same Oracle

server and instance configured on Server A

5. Copy `nmm.keystore` and `nmm.trusstore` from server A and merge the certificates on server B using `nmmcertmerge.ovpl`. For more information, see *NNMi 10.00 Deployment Reference*

Note: Make sure that NNMi is not running during this process.

6. Start the NNMi process using `ovstart -c`
7. Install NNM iSPI for IP Multicast 9.20 (latest patch) with Oracle database as primary server

Note: Make sure you provide the Web Service Client user credentials as mentioned during the NNM iSPI for IP Multicast 9.20 (latest patch) installation on Server A.

8. On Server B, run `nmmrestore.ovpl -source temporary_location` command to complete a full NNMi restore of the backup you completed in [step 2](#) on Server A
9. Start the NNM iSPI for IP Multicast process using `ovstart -c mcastjboss`
10. Upgrade to NNMi 10.00
11. Upgrade to NNM iSPI for IP Multicast 10.00
12. Wait for the next discovery cycle to complete

Chapter 4: Upgrading the NNM iSPI for IP Multicast in an HA Cluster

To upgrade the NNM iSPI for IP Multicast to the version 10.00 in an HA cluster, follow these steps:

1. On the primary (active) node in the cluster, follow these steps:
 - a. Put the NNMi resource group to the HA maintenance mode by placing the `maintenance` file under the following directory:

`$NnmDataDir/hacluster/<resource_group_name>`
 - b. Upgrade NNMi to the version 10.00. For more information, see the *NNMi Upgrade Reference, 10.00*.
 - c. Run `ovstart -c ovjboss` to start NNMi jboss .
 - d. Upgrade the NNM iSPI for IP Multicast to the version 10.00.
 - e. Make sure that the following files from the `/var/opt/OV/shared/multicast/conf` contain the virtual FQDN for the following parameters :

File Name	Variable Name
nms-multicast.jvm.properties	-Dnmsas.server.security.keystore.alias
nnm.extended.properties	com.hp.ov.nms.spi.multicast.Nnm.hostname
nnm.extended.properties	com.hp.ov.nms.spi.multicast.spi.hostname

- f. Make sure that the `server.properties` file from the `/var/opt/OV/nmsas/multicast` directory contains the virtual FQDN of the NNMi management server for the `java.rmi.server.hostname` and `nmsas.server.net.hostname.private` parameters).
- g. Make sure that the `login-config.xml` file from the `/opt/OV/multicast/server/conf` directory contains the virtual FQDN of the NNMi management server (for the `module-option` element).
- h. Modify the relevant files in the following directory with the up-to-date information on both the primary and secondary cluster nodes:

`/var/opt/OV/shared/multicast/conf`

2. On the secondary (passive) node in the cluster, follow these steps:

- a. Put the NNMi resource group to the HA maintenance mode by placing the **maintenance** file under the following directory:

```
$NnmDataDir/hacluster/<resource_group_name>
```

- b. Upgrade NNMi to the version 10.00.
- c. Make sure that NNMi is *not* running.
- d. Upgrade the NNM iSPI for IP Multicast to the version 10.00.

Note: The NNM iSPI for IP Multicast displays two error messages: create db user and create DB. Ignore these errors and continue with the installation.

- e. Make sure that the following files from the `/var/opt/OV/shared/multicast/conf` contain the virtual FQDN for the following parameters :

File Name	Variable Name
nms-multicast.jvm.properties	-Dnmsas.server.security.keystore.alias
nnm.extended.properties	com.hp.ov.nms.spi.multicast.Nnm.hostname
nnm.extended.properties	com.hp.ov.nms.spi.multicast.spi.hostname

- f. Make sure that the `server.properties` file from the `/var/opt/OV/nmsas/multicast` directory contains the virtual FQDN of the NNMi management server for the `java.rmi.server.hostname` and `nmsas.server.net.hostname.private` parameters).
- g. Make sure that the `login-config.xml` file from the `/opt/OV/multicast/server/conf` directory contains the virtual FQDN of the NNMi management server (for the `module-option` element).
- h. Modify the relevant files in the following directory with the up-to-date information on both the primary and secondary cluster nodes:

```
/var/opt/OV/shared/multicast/conf
```

3. Repeat "[On the secondary \(passive\) node in the cluster, follow these steps:](#)" on the previous page on each passive node.

Remove the maintenance file from all passive nodes in the cluster

4. Stop all the processes on primary server by running `ovstop -c`.
5. Run the `Nnmhastartrg.ovpl` command on the primary server. Once the resource group is online and all the processes are running, remove the maintenance file from the primary server.

Note: When the Primary system fails-over to the Secondary standby system, the cluster software may bring down the NNMi on Primary unless it is a system failure. In such a scenario, sometimes the ovstop on "mcastjboss" may not be successful. After the fail-over from one cluster member to other member, make sure that the NNMi and NNM iSPI for IP Multicast are stopped successfully on the failed system. Terminate the java process of mcastjboss. The corresponding java process for mcastjboss can be found using the "ps" command

The timeout parameters on Cluster software must be tuned during the HA deployment. The important timeout parameters for Veritas Cluster Software are OfflineTimeout, OnlineTimeout, and MonitorTimeout. In the case of Windows Cluster Manager software, consider tuning Pending Timeout and Deadlock Timeout parameters. These parameters are to be modified accordingly when two or more iSPI add-on products are installed as well.

We appreciate your feedback!

If you have comments about this document, you can [contact the documentation team](#) by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

Feedback on Upgrade Reference (Network Node Manager iSPI for IP Multicast 10.00)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to docfeedback@hp.com.